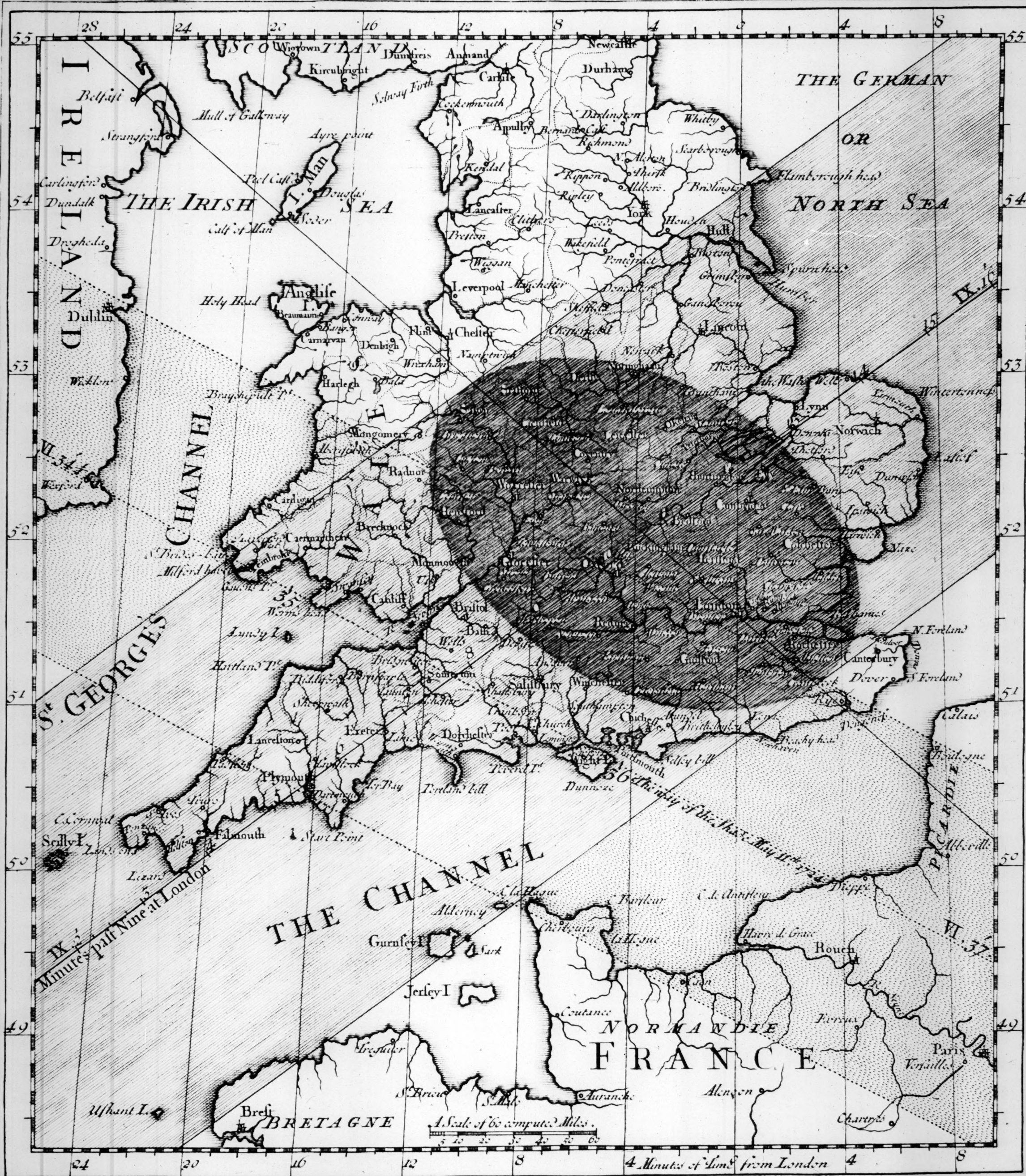


Novemb. 1723.

A Description of the Passage of the Shadow of the MOON over England

In the Total Eclipse of the Sun on the 11th day of May 1724 in the Evening. Together with the Passage of the Shadow as it was Observed in the last Total Eclipse of 1715. By D^r E. Halley, R.S.S. Astr^o Roy.



Since the Publication of our Predictions of this Eclipse has had the desired effect, and many curious Persons have been excited thereby to communicate their Observations from most parts of the Kingdom, we thought it might not be unacceptable to represent after the same manner the passage of the Shade, as it really happened; whereby it will appear that tho' our Numbers pretend not to be altogether perfect, yet the correction they need is very small.

At London the Eclipse was carefully Observed to begin at 8. 6' past Nine, and to become Total at 9. 9. It continued Total 3. 23, and ended at 10. 25. And by the Accounts we have received from Abroad, the Center of the Shade past nearly over Plymouth Exeter, Buckingham and Huntingdon, leaving Bath and Lynn a little on the left, and Oxford and Ely on the right. The Southern limit past over Cranbrook in Kent, leaving Newhaven and Canterbury a very little without: and the Northern limit entered on the Coast of Wales in St. Brides-bay, & left England near Flamborough-head, all which the Map more particularly describes. The greater diameter of y^e Shade having been 170 Geog. Miles or Minutes, and y^e lesser 110.

The Numbers on the middle parallel line, as in our former, denote y^e place of y^e Center of y^e Shade at so many minutes past Nine at London. By help of this and of y^e other diameter of y^e shaded Oval (conjugate to y^e on w^{ch} y^e Center moved) passing over y^e places where the greatest Obscurity was at y^e same instant as at London, we may very nearly find y^e time of y^e greatest darkness at any other place in y^e Map. For drawing a line parallel to this conjugate diameter thro' y^e proposed place, it will cross y^e way of y^e Shade at y^e minute of y^e greatest Obscurity reckoned as at London, and by allowing y^e difference of Meridians, at y^e place itself. Thus for example, the greatest Eclipse will be found at York at 9. 10, at Dublin 8. 42 1/2, at Brest 8. 43 1/2. After y^e same manner may y^e time of Total Darkness be had, by drawing a line parallel to y^e way of y^e Shade by y^e Place proposed. For as much of that line as falls within y^e shadowed Oval, measured on the Scale of minutes, will shew how long that place continued within the true Shade of y^e Moon.

We give you likewise y^e Transit of y^e Shade, as it will pass over y^e West of England in y^e Eclipse y^e will be Anno 1724 May 11. P.M. in w^{ch} y^e Northern limit passes very near Dublin & Oxford. But it will scarce reach London where it begins at 5. 39, is greatest at 6. 35 1/2, & ends at 7. 27 1/2 in y^e Evening.